

REMARKS

In the April 5, 2006 Office Action, claims 6-9, 14, and 15 stand rejected in view of prior art. In the April 5, 2006 Office Action, all of the claims stand rejected in view of prior art. No other objections or rejections were made in the Office Action.

Status of Claims and Amendments

In response to the April 5, 2006 Office Action, Applicants respectfully traverse the rejections and have included comments to traverse the rejections. Further, Applicants have added claims 16 and 17. Moreover, Applicants have amended claims 6 and 15 to correct form and/or grammatical errors discovered upon review. Thus, claims 6-9 and 14-17 are pending, with claim 6 being the only independent claim. Reexamination and reconsideration of the pending claims are respectfully requested in view of above amendments and the following comments.

Rejections - 35 U.S.C. § 102

In item 4 of the Office Action, claims 6, 7, and 9 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,275,110 (Kung). In response, Applicants respectfully traverse the rejections and have included comments to support the traversals.

In particular, independent claim 6 recites a mixer circuit that mixes signals, and that outputs respectively the mixed signals to the first and second output terminals. In contrast, as seen in Figure 2 of Kung, Applicants respectfully assert that transistors Q1 and Q2, which are identified in the Office Action as the mixing unit, are actually part of an amplifier circuit because it uses only one signal and amplifies it. As seen in Figure 2 of Kung, the input signal applied to the base of Q3 and Q4 is related to the signal applied to the base of Q1 and Q2 (See column 4, lines 5-10 of Kung). Since only one signal is input, Applicants respectfully assert that no mixing of signals can occur as recited in claim 6 of the present application.

Thus, Applicants respectfully assert that Q1 and Q2 are an amplifying unit that amplifies the differential input signal v_{i+} and v_{i-} , in contrast to the recitation of claim 6 of the present application, which recites a mixing circuit that outputs respectively the mixed signals to the first and second output terminals.

Clearly, this structure is *not* disclosed or suggested by Kung or any other prior art of record. It is well settled under U.S. patent law that for a reference to anticipate a claim, the reference must disclose each element of the claim within the reference. Therefore, Applicants respectfully submit that claim 6 is not anticipated by the prior art of record. Withdrawal of this rejection is respectfully requested.

Moreover, Applicants believe that dependent claims 7, 8, 9, 14, and 15 are also allowable over the prior art of record in that they depend from independent claim 6, and therefore are allowable for the reasons stated above. In particular, claim 15 recites that the mixing unit is connected to the amplification unit solely by the third input terminal being connected to the output terminal of the amplification unit. As seen in Figure 2 of Kung, Applicants respectfully assert that Kung discloses Office Action identified "mixing unit" Q1 and Q2 being connected to the amplification unit Q5 by the third input terminal 29 and by the first and second input terminal 17 and 18 via Q3 and Q4. Regardless, Applicants respectfully assert that the dependent claims are further allowable because they include additional limitations. Thus, Applicants believe that since the prior art of record does not anticipate the independent claim 6, neither does the prior art anticipate the dependent claims.

Applicants respectfully request withdrawal of the rejections.

Rejections - 35 U.S.C. § 103

In item 6 of the Office Action, claim 8 stands rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,275,110 (Kung) in view of U.S. Patent No.

6,147,559 (Fong). In response, Applicants respectfully traverse the rejection and have included comments to support the traversal.

In particular, Applicants believe that independent claim 6 is allowable over Kung for the reasons stated above. Further, Fong is referenced to show a capacitor connecting first and second terminals of an amplification element, and also fails to disclose or suggest a mixer circuit that outputs mixed signals as claimed. Since neither reference discloses or suggests this feature, Applicants respectfully assert that the combination thereof also fails to disclose or to suggest this feature.

Clearly the arrangement of claim 6 is *not* disclosed or suggested by the prior art of record. It is well settled in U.S. patent law that the mere fact that the prior art can be modified does *not* make the modification obvious, unless the prior art *suggests* the desirability of the modification. Accordingly, the prior art of record lacks any suggestion or expectation of success for combining the patents to create the Applicants' unique arrangement of a mixer circuit.

Moreover, Applicants believe that the dependent claim 8 is also allowable over the prior art of record in that it depends from independent claim 6, and therefore is allowable for the reasons stated above. Also, the dependent claim is further allowable because it includes additional limitations. Thus, Applicants believe that since the prior art of record does not disclose or suggest the invention as set forth in independent claim 6, the prior art of record also fails to disclose or suggest the invention as set forth in the dependent claim.

Therefore, Applicants respectfully request that this rejection be withdrawn in view of the above comments and amendments.

New Claims - 16 and 17

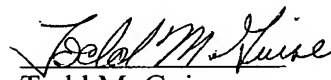
Appl. No. 10/775,234
Amendment dated October 2, 2006
Reply to Office Action of April 5, 2006

Applicants have added new claims 16 and 17, which depend on claim 6, and which Applicants believe to be allowable for the aforementioned reasons. Further, the claims 16 and 17 are believed to be further allowable because they include additional limitations. Examination and consideration are respectfully requested.

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In view of the foregoing amendment and comments, Applicants respectfully assert that claims 6-9 and 14-17 are now in condition for allowance. Reexamination and reconsideration of the pending claims are respectfully requested.

Respectfully submitted,


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